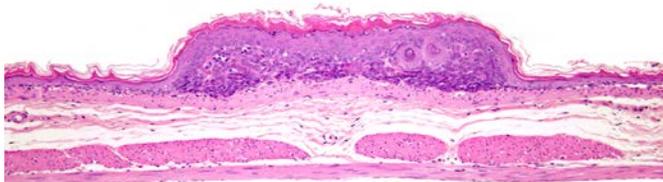


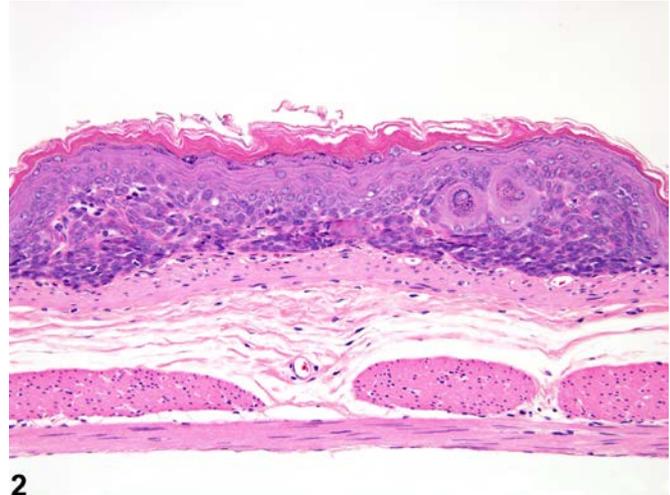
NTP Nonneoplastic Lesion Atlas

Stomach, Forestomach, Epithelium – Hyperplasia, Atypical



1

Figure Legend: **Figure 1** Stomach, Forestomach, Epithelium - Hyperplasia, Atypical in a female F344/N rat from a subchronic study. Focal epithelial hyperplasia with large, atypical cells is present.

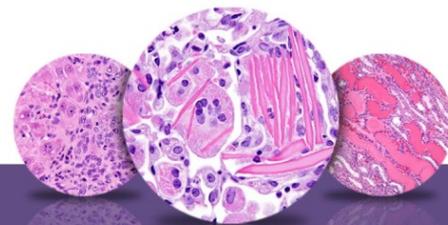


2

Figure 2 Stomach, Forestomach, Epithelium - Hyperplasia, Atypical in a female F344/N rat from a subchronic study (higher magnification of Figure 1). Focal epithelial hyperplasia with large, atypical cells is present.

Comment: Some chemicals cause atypical hyperplasia of the forestomach that is characterized by hyperplasia and disorganization, abnormal keratinization, or the presence of abnormal cells (Figure 1 and Figure 2). The distinction between early squamous cell carcinomas and focal atypical hyperplasia can often be difficult. In atypical hyperplasia there is no invasion beyond the basement membrane, whereas carcinomas have irregular cords or clusters of cells that extend deeper into the submucosa. With hyperplasia, even with marked atypia at the deep aspect of the lesions, there remains some degree of orderly maturation.

Recommendation: Atypical hyperplasia should be diagnosed and graded whenever present. If there are features of atypia, such as dyskeratinization, disorganization, or the presence of atypical cells, then atypical hyperplasia should be diagnosed. If the pathologist feels that two distinct hyperplastic processes are present (e.g., diffuse and atypical), then both should be diagnosed and thoroughly described in the pathology narrative. The modifiers “focal” and “diffuse” should be used whenever possible. Grading should be based on the size, extent of distribution, and thickness of the epithelium.



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Multifocal lesions are not recorded as “multifocal” but are given a higher severity grade than single lesions.

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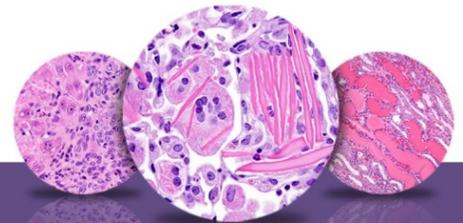
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NTP Nonneoplastic Lesion Atlas

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